Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A quantum dot light-emitting diode comprising:

a top electrode;

a bottom electrode disposed substantially opposite the top electrode and on a substrate including a polyethyleneterephthalate or a polycarbonate substrate;

an inorganic quantum dot light-emitting layer provided between the top electrode and the bottom electrode;

an inorganic electron transport layer disposed between the inorganic quantum dot light-emitting layer and the top electrode; and

an organic hole transport layer disposed between the inorganic quantum dot light-emitting layer and the bottom electrode,

wherein the organic hole transport layer is made of a material selected from the group consisting of poly(3,4-ethylenedioxythiophene) (PEDOT)/polystyrene para-sulfonate (PSS) derivatives, poly-N-vinylcarbazole derivatives, polyphenylenevinylene derivatives, polyparaphenylene derivatives, polymethacrylate derivatives, poly(9,9-octylfluorene) derivatives, poly(spiro-fluorene) derivatives, N,N'-diphenyl-N,N'-bis(3-methylphenyl)-(1,1'-biphenyl)-4,4'-diamine (TPD), N,N'-di(naphthalene-1-yl)-N,N'diphenyl-benzidine (NPB), tris(3-methylphenylphenylamino)-triphenylamine (m-MTDATA), and poly(9,9'-dioctylfluorene-co-N-(4-butylphenyl)diphenylamine (TFB); and

wherein the thickness of the inorganic electron transport layer is in the range of about 10 nanometers to about 100 nanometers.

2. (Previously Presented) The quantum dot light-emitting diode according to claim 1, wherein the quantum dot light-emitting diode further comprises:

a substrate disposed beneath the bottom electrode,

wherein the organic hole transport layer is disposed on the bottom electrode, and

wherein the bottom electrode is an anode and the top electrode is a cathode, and

wherein the anode, the organic hole transport layer, the inorganic quantum dot light-emitting layer, the inorganic electron transport layer and the cathode are formed in this order on the substrate.

3. (Previously Presented) The quantum dot light-emitting diode according to claim 1, wherein the inorganic electron transport layer is made of an oxide selected from the group consisting of TiO_2, ZnO, SiO_2, SnO_2, WO_3, Ta_2O_3, $BaTiO_3$, $BaZrO_3$, ZrO_2, HfO_2, Al_2O_3, Y_2O_3 and $ZrSiO_4$; the nitride Si_3N_4; or a semiconductor compound selected from the group consisting of CdS, ZnSe and ZnS.

4. (Previously Presented) The quantum dot light-emitting diode according to claim 1, wherein the inorganic quantum dot light-emitting layer is made of a material selected from the group consisting of: Group II-VI compound semiconductor nanocrystals, including CdS, CdSe, CdTe, ZnS, ZnSe, ZnTe, HgS, HgSe and HgTe; Group III-V compound semiconductor nanocrystals, including GaN, GaP, GaAs, InP and InAs; PbS; PbSe; PbTe; CdSe/ZnS; CdS/ZnSe; and InP/ZnS.

5. (Previously Presented) The quantum dot light-emitting diode according to claim 1, wherein the inorganic electron transport layer is formed by a solution coating process selected from the group consisting of sol-gel coating, spin coating, printing, casting and spraying, or a vapor coating process selected from the group consisting of chemical vapor deposition (CVD), sputtering, e-beam evaporation and vacuum deposition.

6. (Cancelled)

7. (Previously Presented) The quantum dot light-emitting diode according to claim 2, wherein the inorganic electron transport layer is made of an oxide selected from the group consisting of TiO_2, ZnO, SiO_2, SnO_2, WO_3, Ta_2O_3, $BaTiO_3$, $BaZrO_3$, ZrO_2, HfO_2, Al_2O_3, Y_2O_3

and $ZrSiO_4$; the nitride Si_3N_4; or a semiconductor compound selected from the group consisting of CdS, ZnSe and ZnS.

8. (Previously Presented) The quantum dot light-emitting diode according to claim 2, wherein the inorganic quantum dot light-emitting layer is made of a material selected from the group consisting of: Group II-VI compound semiconductor nanocrystals, including CdS, CdSe, CdTe, ZnS, ZnSe, ZnTe, HgS, HgSe and HgTe; Group III-V compound semiconductor nanocrystals, including GaN, GaP, GaAs, InP and InAs; PbS; PbSe; PbTe; CdSe/ZnS; CdS/ZnSe; and InP/ZnS.

9. (Previously Presented) The quantum dot light-emitting diode according to claim 2, wherein the inorganic electron transport layer is formed by a solution coating process selected from the group consisting of sol-gel coating, spin coating, printing, casting and spraying, or a vapor coating process selected from the group consisting of chemical vapor deposition (CVD), sputtering, e-beam evaporation and vacuum deposition.

10. (Previously Presented) A quantum dot light-emitting diode comprising:

a top electrode;

a bottom electrode disposed substantially opposite the top electrode and on a substrate including a polyethyleneterephthalate or a polycarbonate substrate;

an inorganic quantum dot light-emitting layer provided between the top electrode and the bottom electrode; and

an inorganic electron transport layer disposed between the inorganic quantum dot light-emitting layer and the top electrode,

wherein the inorganic electron transport layer includes an oxide selected from the group consisting of TiO_2, ZnO, SiO_2, SnO_2, WO_3, Ta_2O_3, $BaTiO_3$, $BaZrO_3$, ZrO_2, HfO_2, Al_2O_3, Y_2O_3 and $ZrSiO_4$; the nitride Si_3N_4; or a semiconductor compound selected from the group consisting of CdS, ZnSe and ZnS.